

REMARKS

The examiner is thanked for the performance of a thorough search and for the indication of allowable subject matter. By this amendment, Claims 35, 36, 39, 41, 46, 49, 52, 53, 59, and 60 are amended, Claims 34 and 58 are cancelled, and no claims are added. Hence, Claims 35-53, and 59-64 are pending in the application.

The amendments to the claims as indicated herein do not add any new matter to this application. For example, formerly-dependent Claims 35 and 59 are now in independent form.

Each issue raised in the Office Action mailed October 5, 2007 is addressed hereinafter.

I. ISSUES NOT RELATING TO THE CITED ART

A. EXAMINER'S NOTE

On page 2 the Final Office Action states, "However, examiner notes that the only means for performing simulating in the specification appears to be software. Since no other specific structure limitations are disclosed in the specification, the claims have not invoked 35 U.S.C. 112 sixth paragraph when considered below." Specific structural limitations are recited on pages 56-60 of the specification. Furthermore, representatives are unaware of any case law that states that software is not considered "structural."

B. 35 U.S.C § 112(2)

Each of Claims 34, 52, and 53 was rejected under 35 U.S.C. § 112(2) as reciting "a computer system" twice. Appropriate amendments to the claims are made herein.

C. 35 U.S.C § 101

Claims 49-51 and 53 stand rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Claims 49 and 53 recite that "the computer-readable storage medium is

one of a volatile medium or a non-volatile medium.” Support for this amendment is found in paragraph 210 of the specification. It is also respectfully noted that a computer-readable storage medium is not a signal because a signal is incapable of storing instructions.

II. ISSUES RELATING TO THE CITED ART

Claims 43, 44, 46, 47, 49, 50, and 63 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by *Baker*. It is respectfully noted that, based on *Baker*, this rejection should be made under 35 U.S.C. § 102(e). This rejection is respectfully traversed.

Claims 34, 35, 39-42, 45, 48, 51-53, 58, 59, and 64 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Baker*. This rejection is respectfully traversed.

A. CLAIM 43

Claim 43 recites:

A method of software change modeling of nodes in a network of nodes on a computer system, the method comprising the computer-implemented steps of:
executing a software update simulator on said computer system;
wherein said software update simulator runs software components normally run on a master node in the network of nodes;
receiving a current software configuration of a node into said software update simulator by receiving current software modules installed on said node;
receiving a request for a simulation of a software update by receiving an updated software image into said simulator;
wherein the software image contains a set of one or more software packages;
wherein each software package of the set contains at least one software module with corresponding software dependency information;
wherein said software update simulator calculates the software update's impact on said node using a current software configuration of said node; and
displaying the calculation's results to a user. (emphasis added)

At least the above-bolded features of Claim 43 are not taught or suggested by *Baker*.

1. *Baker fails to teach or suggest the recited current software configuration*

Claim 43 recites “receiving a current software configuration of a node into said software update simulator by receiving current software modules installed on said node.” The Final Office Action cites col. 6, lines 59-63 of *Baker* for disclosing this feature of Claim 43. This is incorrect. The entirety of that cited portion states:

The simulation computer has access to all of the file servers 100a 100h in the download. A diskette 210 is placed into the floppy drive of the simulation computer 200. The diskette contains an electronic traveler similar to the electronic traveler on the target computer.

The Final Office Action equates (a) the simulation computer 200 of *Baker* with the recited software update simulator of Claim 43 and (b) the target computer 120a of *Baker* with the recited node of Claim 43. No element in *Baker* corresponds to the recited current software configuration (CSC) of Claim 43. For example, the electronic traveler of *Baker* is merely a “file that identifies the model of the target computer for which the download process needs to be tested” (col. 6, lines 65-67). An electronic traveler is not a CSC. Indeed, *Baker* lacks any teaching or suggestion of the simulation computer 200 “receiving current software modules installed on” the target computer 120a, as Claim 43 would require.

A reason for this fundamental deficiency in *Baker* is that *Baker* teaches “a system and method of testing an automated software installation process. The process tested is used to custom load individual computer systems with end user specified software configurations” (col. 3, lines 31-34; emphasis added). Indeed, the target computer 120a in *Baker*, to which software is to be downloaded, does not have any existing software before the “specified software configurations” (i.e., the alleged updated software image) are loaded. In contrast, the recited node in Claim 43 has a current software configuration before receiving the updated software image.

Thus, Claim 43 recites that (1) a CSC of a node and (2) an updated software image for the node are received into the recited software update simulator. Even if the software in *Baker* (i.e., software that is downloaded from the file servers 100a-100h to the simulation computer 200) could be equated to the recited updated software image of Claim 43, there is nothing in *Baker* that could be equated to the recited CSC of Claim 43.

2. *Baker fails to teach or suggest the recited software dependency information*

Baker also fails to teach or suggest that a software package “contains at least one software module with corresponding software dependency information” as recited in Claim 43. The Final Office Action cites col. 4, lines 12-15 of *Baker* for disclosing this feature of Claim 43. This is incorrect. That cited portion merely states, “This information includes batch files, scripts, and application software. The application software can be either in a compressed or uncompressed format.” This cited portion, and the entire *Baker* reference, fails to suggest anything related to dependency information.

Based on the foregoing, *Baker* fails to teach or suggest all the features of Claim 43. Therefore, Claim 43 is patentable over *Baker*. Reconsideration and withdrawal of the rejection of Claim 43 under 35 U.S.C. § 102 is therefore respectfully requested.

B. CLAIMS 46, 49, AND 63

Each of independent Claims 46, 49, and 63 is either an apparatus claim or a computer-readable storage medium claim. Each of Claims 46, 49, and 63 recite features discussed above that distinguish Claim 43 from *Baker*. Therefore, each of Claims 46, 49, and 63 is allowable for the reasons given above with respect to Claim 43.

C. CLAIM 35

Claim 35 recites:

A method of software change modeling of networked nodes on a computer system, the method comprising the computer-implemented steps of:
simulating, using a software update simulator on the computer system, processes from at least one node of the networked nodes;
wherein each simulated process is a minimal version of a functional process that runs on said node; and
receiving a software update for said node by said software update simulator;
wherein the software update contains a set of one or more software packages;
wherein each software package of the set contains at least one software module with corresponding software dependency information;
wherein said software update simulator notifies a control process for said node that a software update is being requested;
wherein said software update simulator passes said control process identities of the set of one or more software packages to be updated and software dependency information; and
wherein said control process determines running functional node processes that will be affected by the software update using the software dependency information. (emphasis added)

At least the above-bolded features of Claim 35 are not taught or suggested by *Baker*.

1. *Baker fails to teach or suggest simulating processes from a node in a network*

The Final Office Action cites col. 6, lines 56-59 of *Baker* for disclosing “simulating, using a software update simulator on the computer system, processes from at least one node of the networked nodes” as recited in Claim 35 (page 7). The cited portion of *Baker* states that an environment on a simulation computer 200 mimics a target computer 200a, not actual processes from the target computer 120a. Instead, the “environments” referred in *Baker* include the “manufacturing environment” (see col. 3, line 65 to col. 4, line 4) and “environment variables” (see col. 5, lines 17-29), neither of which can be equated to processes from the target computer 120a.

As stated previously, the target computer 120a of *Baker* initially has no software installed thereon, whereas the simulated node of Claim 35 already has processes running (and, therefore, inherently software) on the node. Paragraph 186 of the present specification states: “Software change modeling allows a user **to simulate a software change** to a system. The user can discover what effects a software update will have on a node or a set of nodes **without actually impacting the router or computer network.**” In contrast, *Baker* teaches that user input is simulated and not that a software change is simulated.

2. *Baker fails to teach or suggest “minimal version of a functional process”*

The Final Office Action cites the same portion of *Baker* cited above (i.e., col. 6, lines 56-59) for disclosing “wherein each simulated process is a minimal version of a functional process that runs on said node” as recited in Claim 35. This is incorrect. This portion of *Baker* merely states: “The interpretative simulation process begins by setting up on the simulation computer 200 an environment that mimics the target computer 120a as described above and illustrated in FIG. 1.” This cited portion fails to teach or suggest anything related to a simulated process of a functional process that runs on a node, much less a simulated process that is a minimal process of the functional process. Instead, *Baker* discloses the simulation of a software download to an “empty” computer, i.e., one that has no software currently installed thereon, nor any processes currently running.

3. *Baker fails to teach or suggest “wherein each software package of the set contains at least one software module with corresponding software dependency information”*

The Final Office Action asserts that col. 4, lines 12-15 of *Baker* teaches that a software package “contains at least one software module with corresponding software dependency information” as recited in Claim 35. This is incorrect. That portion of *Baker* merely states:

“This information includes batch files, scripts, and application software. The application software can be either in a compressed or uncompressed format.” This cited portion fails to suggest anything related to dependency information. The entire *Baker* reference is devoid of any teaching of dependency information that corresponds to a software package.

Based on the foregoing, even if the Official Notices were true, *Baker* fails to teach or suggest the other features of Claim 35. Therefore, Claim 35 is patentable over *Baker*. Reconsideration and withdrawal of the rejection of Claim 35 under 35 U.S.C. § 103(a) is therefore respectfully requested.

4. *The taking of Official Notice is not proper*

The Final Office Action admits that U.S. Patent No. 7,240,336 issued to Baker (“*Baker*”) does not disclose the following features of Claim 35:

wherein said software update simulator notifies a control process for said node that a software update is being requested (feature 1);
wherein said software update simulator passes said control process identities of the set of one or more software packages to be updated and software dependency information (feature 2); and
wherein said control process determines running functional node processes that will be affected by the software update using the software dependency information (feature 3).

The Final Office Action takes Official Notice:

that notifying a control process (target computer) that a software update is being requested and passing the control process (target computer) identities of software packages to be updated and software dependency information are well known to the updating/upgrading/patching/downloading techniques...
(page 8)

and

that control process (target computer) determines running functional node processes that will be affected by the software update using the software dependency is well known to the updating/upgrading/patching/downloading technique.
(page 9)

However, the Final Office Action does not provide a specific reference where such limitations are found, instead arguing that one of ordinary skill in the art would have found it obvious to modify the invention in *Baker* to arrive at the conclusion. Under M.P.E.P. § 2144.03(C), “[i]f [the] applicant adequately traverses the examiner’s assertion of official notice, the examiner **must provide documentary evidence in the next Office action if the rejection is to be maintained**” (emphasis added). M.P.E.P. § 2144.03(C) also states, “To adequately traverse such a finding [of official notice], an applicant must specifically point out the supposed errors in the examiner’s action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art.” Applicants hereby traverse the assertion and request that a reference be cited in support of the position outlined in the Office Action.

The Official Notice of feature 3 (i.e., that a target computer uses dependency information to determine “running functional node processes that will be affected by the software update”) is not proper because it is not a fact that is “capable of instant and unquestionable demonstration as being well-known,” as required by MPEP 2144.03(A). There is no evidence in the record that, at the time of Applicants’ invention, computer systems included a control process that determined running processes affected by a proposed software update. Instead, computer systems, in response to installing software updates, were typically required to be restarted in order for the software updates to take effect regardless of whether running processes will be affected by the software updates (see, e.g., paragraph [0005] of the specification). Furthermore, even assuming a computer system could determine running functional node processes that would have been affected by a software update, Claim 35 additionally recites that software dependency information that is included in a software update is used to make the determination.

Additionally, like feature 3, there is no evidence to show that features 1 and 2 are capable of instant and unquestionable determination.

Thus, it is respectfully submitted that Claim 35 is patentable over the Official Notice of the Final Office Action.

D. CLAIMS 52, 53, AND 59

Each of independent Claims 52, 53, and 59 is either an apparatus claim or a computer-readable storage medium claim that recites the features of Claim 35 that render Claim 35 patentable over *Baker*. Therefore, Claims 52, 53, and 59 are patentable over *Baker* for at least the same reasons discussed above with respect to Claim 35.

E. DEPENDENT CLAIMS

The dependent claims not discussed thus far are dependent claims, each of which depends (directly or indirectly) on one of the independent claims discussed above. Each of the dependent claims is therefore allowable for the reasons given above for the claim on which it depends. In addition, each of the dependent claims introduces one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case, a separate discussion of those limitations is not included at this time. The Applicant reserves the right to further point out the differences between the cited art and the novel features recited in the dependent claims.

IV. CONCLUSIONS & MISCELLANEOUS

For the reasons set forth above, all of the pending claims are now in condition for allowance. The Examiner is respectfully requested to contact the undersigned by telephone relating to any issue that would advance examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, a law firm check for the petition for extension of time fee is enclosed herewith. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,
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